

Notice of Allowability

Application No.

10/519,418

Examiner

Janet L. Coppins

Applicant(s)

QIN ET AL.

Art Unit

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicants' Amendment of 10/9/07.
2. ☒ The allowed claim(s) is/are 19-31, 33 and 35.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. Claims 19-31, 33 and 35 are pending in the instant application.

Response to Amendment

2. Applicants' Amendment of October 9, 2007, has been reviewed by the Examiner and entered in the file. Accordingly, claims 30, 31, 33 and 35 have been amended, and claims 32, 34 and 36 have been cancelled.

Claim Rejections - 35 USC § 112

3. Claims 30 and 32-35 previously rejected under 35 U.S.C. 112, first paragraph, as not being fully enabled. In view of Applicant's amendment to claim 30 and persuasive arguments, the enablement rejections are withdrawn. Applicants demonstrate the ability of the instant compounds to enhance memorization in animals in the many working examples found on pages 20-22 of the instant specification.

Double Patenting

4. Claim 34 previously objected to under 37 CFR 1.75 as being a substantial duplicate of claim 33. In view of Applicants' amendment of claim 33 and cancellation of claim 34, the double patenting rejection is withdrawn.

Allowable Subject Matter

5. In view of Applicants' amendatory changes and cancellations, claims 19-31, 33 and 35 now appear allowable over the prior art.

Reasons for Allowance

6. Claims 19-31, 33 and 35 are allowable, as newly renumbered as claims 1-15. The following is an examiner's statement of reasons for allowance:

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This invention relates to novel acutumine derivatives; their pharmaceutical compositions, and their methods of use. The allowable compounds are limited to compounds according to formula (I) of renumbered claim 1, and formula (I') of renumbered claim 10. The alkaloid acutumine is known in the art as having mnemognition-facilitating ability, however the aspect of preparing the instant claimed derivatives of acutumine, with memory enhancing activity, is novel and unobvious. The instant compounds were tested for their ability to enhance the memorization in murine models (please refer to Examples A-E found in the specification), which makes them useful as agents for treating deficiencies in memory. After a thorough search, the closest of prior art, Yu, Bing-Wu et al, "Alkaloids from *Menispermum dauricum*" was found to teach similar alkaloids, including acutumine compounds. However the journal article fails to teach or render obvious the instant claimed compounds according to formula (I), and does not fairly suggest methods of using the instant claimed compounds as for treating deficiencies of memory in animals.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Telephone Inquiry

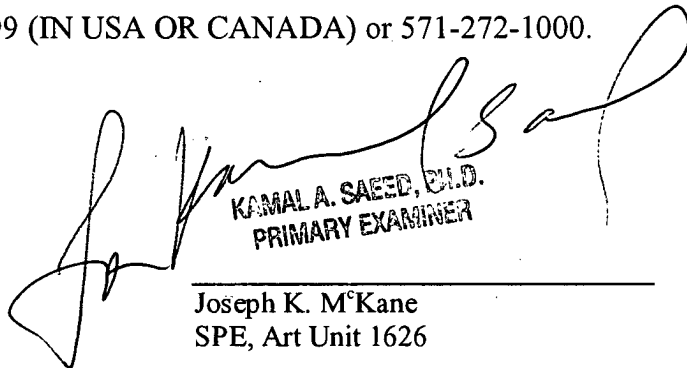
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet L. Coppins whose telephone number is 571.272.0680. The examiner can normally be reached on M-F 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane can be reached on 571.272.0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Janet L. Coppins
December 22, 2007



KAMAL A. SAEED, Ph.D.
PRIMARY EXAMINER

Joseph K. McKane
SPE, Art Unit 1626